

**EXAMINER'S TELEPHONE CONFERENCE CALL**

Applicant's attorney, Jay R. Hamilton, held an interview by phone with examiner Nathan Mammen on June 6, 2003 to discuss a proposed amendment and prior art that had been referenced in a previous rejection by the examiner. The examiner and applicant generally discussed applicant's invention and possible better ways to claim it to avoid 35 U.S.C. 102/103 prior art rejections while meeting the enablement requirements of 35 U.S.C. 112.

Applicant believes that the examiner and applicant reached an agreement that the previously referenced prior art, referred to as Rayfield (U.S. #5,784,869), did not teach applicant's invention. (See Remarks below) At the examiner's request, the applicant agreed that a request for continued examination was proper as was a submission of revised claims meeting the 35 U.S.C. 112 requirements to continue the patent application prosecution process.

### REMARKS

Applicant has responded to examiners arguments and rejections with regard to claim language by canceling claims 1-15 and submitting claims 16-27 to meet the requirements of the requirements of 35 U.S.C. 112, 2<sup>nd</sup> paragraph. Applicant argues examiner's arguments that claims 1-8, 11, 13 and 14 are rejected under 35 U.S.C. 102(b) as based on the patent issued to Rayfield (U.S. Patent #5,784,869 hereinafter referred to as "Rayfield") may be misplaced.

Specifically, the examiner has argued that the structure element he has labeled as "B", when adjusted in relation to the elements he has labeled "A", "C", and "D" anticipates the teachings of applicant's present invention. The examiner argues that adjustment of structure "B" would accomplish the same objective as applicant's invention i.e. reducing the angle of incline from the exit of the second conveyor unit to the third conveyor unit.

Applicant first argues that Figure "A" of the examiner's reference is not the axis of operation for the first and second conveyor systems. The actual axis of operation for the first and second conveyor systems is the header frame as engaged by the feeder house. The feeder house of the combine is designed to extend at a downward angle in relation to the main combine body. As the feeder house is moved up and down to raise and lower the head, the header frame travels a slightly arcuate path. Raising and lowering the combine header does not change the distance between the second and third conveyor systems. Raising and lowering the combine header does not change the distance between the first and second conveyor systems.

Next, applicant argues that the examiner has not met his burden to provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) Applicant submits a portion of the operating manual from a New Holland model TR87 to support

his argument that examiner has not met his burden. New Holland is the assignee of the patent issued to Rayfield. Applicant asserts that the model TR87 combine reflects the prior art in which the feeder face plate shown in Fig. 3 of the Rayfield patent was used.

As shown in Figure 4A-14 of the operating manual, the elements referred to as "B" by the examiner in the Rayfield patent are also labeled B in figure 4A-14. The operator's manual then goes on to state the following:

*The feeder face plate angle can be changed to maintain the optimum cutter bar angle with the ground, regardless of the tire size used or ground conditions encountered.*

*Consult the following chart for the recommended face plate angle for a given tire size and head combination. Figure 4A-14 shows the feeder holes which are listed in the chart. The top five holes are numbered from the rear toward the front. The lower holes can be used for intermediate adjustment.*

The operating manual after listing a chart for the three models of cutter clearly states:

***NOTE: Any face plate angle can be used with the Model 974 corn head. However, if only the corn head will be used, use face plate hole 2.***

*The face plate angles shown in the chart are for normal ground conditions. Change the face plate angle when operating in muddy conditions for an extended period.*

*To change the feeder face plate angle, remove bolt A, Figure 4A-14, from both sides of the feeder. Loosen the five bolts, B, on both sides of the feeder.*

*Loosen bolts, A, Figure 4A-15, along the back edge of the face plate. Move the face plate to the desired position. Reinstall the top two bolts and tighten the remaining hardware. Slide plate, B, forward until it contacts the face plate or until the slotted holes in the plate bottom. Tighten hardware, A.*

The section of the New Holland model 973 Flexible Cutter Bar Grain Head entitled "TROUBLESHOOTING" states the following:

Problem	Possible Cause	Correction
Stubble length too long or guard tips digging into the ground.	Improper tilt of feeder face plate	Position feeder plate as recommended for various tire sizes. See combine operator's manual.

According to the operators' manual (published April, 1995) for the TR87, there are five (5) settings for the feeder face plate. In position one (1), the feeder face plate is close to the vertical position or completely perpendicular in relation to the feeder house. In position five (5), the feeder plate is reclined towards the combine feeder house. The operator's manual recommends that as the diameter of the tires is increased, the feeder face plate angle should be increased. This is necessary to maintain a constant angle of engagement between the head and the grain, as necessitated for proper threshing operation. As supported by the operator's manual for the cutter head, an improper tilt of the feeder face plate may leave the stubble length too long or allow the guard tips to dig into the ground.

Based on the examiner's analysis of the Rayfield prior art, if the operator wanted to reduce the angle of incline from the second conveyor system to the third conveyor system, using only the feeder plate adjustment shown while maintaining the same tire diameter, he would have to operate the combine at a new angle of engagement between the head and the grain. Applicant argues that Rayfield does not teach one skilled in the art to limit the choice of tire size or angle of engagement in order to decrease the angle of incline between the second and third conveyor systems.

Additionally, the spatial relationship between the functional elements found in section D-E, at the exit of the second conveying unit, as shown in the prior art Fig. 4, cannot change with the adjustment of element "B", the feeder face plate. As taught by

Rayfield, adjustment at the face plate does not change the distance between the cross-auger trough (10) and the cross-auger (6, 8) or the spatial relationship between the cross-auger trough (10) and the cross-auger (6, 8).

According to section 2112 of the MPEP, the examiner must provide a rationale or evidence tending to show inherency. The fact that a certain result or characteristic may occur (i.e. lateral movement towards the mobile threshing unit when the feeder face plate is moved) or be present is not sufficient to establish the inherency of that result or characteristic. In re Rijckaert, 9.F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) Applicant argues that the Rayfield patent does not describe nor disclose, either explicitly or inherently, the claimed and disclosed invention.

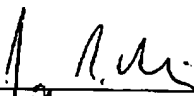
Applicant submits that the application as now presented is believed in condition for allowance and action to that request is respectfully requested. Applicant requests that the examiner continue examination of the patent application and if applicable provide applicant with an examiner's amendment.

Respectfully submitted,

MARION CALMER,

Date: June 20, 2003

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**Revised Specification Paragraphs (Marked-Up Version)**

Paragraphs 4-5, page 5

The realignment provides reduced energy requirements for propelling the crop or to assist in propelling the crop in its movement from the cross auger trough 200 to the feeder house 340 where it is engaged by the feeder house chain 320 and slats 310 for further powered movement. This realignment is accomplished as shown in figure 4, 4a, 5, and 6 by inserting a vertical spacer 240 [, 245] or 255 to elevate the header bar 250 vertically. The vertical spacer 240 is attached to the corn head frame 250 by means of a bracket 260 which may be held by similar and any well-known fastening means to secure 250 and 260 together. Vertical spacers 245 and 255 are also attached by well-known fasteners but not shown.

In figure 4 and 4a, when the vertical spacer is inserted the entire corn head is lifted vertically so that the flighting 230 and paddles 210 will possibly interfere with the feeder house chain 320. Thus to permit the raising of the entire corn head, point E must be moved laterally in a direction away from the feeder house chain 320. This movement is accomplished by the insertion of a lateral spacer 270 [This spacer is] between the auger trough 200 and frame of the feeder house 340 at its lowest portion. To maintain [insert or] lateral spacer 270 in its position a fastening means must be provided. Lateral spacer 270 may be fastened to the cross auger 200 trough by any well-known means such as bolts or welding.

Paragraphs 2-5, starting on page 6 and ending on page 7:

In order to prevent discharge of the material onto the ground through the void created by insertion of lateral spacer 270 a flexible or rigid filler plate 280 must be inserted between the cross auger trough 200 and the feeder house tray 340 and attached with common fasteners.

Figure 4a shows the invention with lowering only to the aft portion of auger trough 200 in front of feeder house 340.

A further embodiment of this invention is shown in figure[s] 5 wherein the function of the lateral [horizontal] spacer 270 and vertical spacers 240 or 255 are combined in one unit as trapezoidal [one] spacer 245. This trapezoidal spacer 245 is formed as shown in figure 5 so that it both horizontally and vertically changes the spatial relationship between the feeder house 340 and the exit of cross auger floor 200. This embodiment could be done if it is desirable with [some headers] different combine headers to move the auger flighting 230 closer to the feeder house chain 320. A flexible filler plate 280 is still necessary, which then forms a cylindrical surface to be swept by the path of the feeder house conveyor chain 320. A fastening member is provided to hold the cross auger trough 200 and the feeder house 340 together by a fastener means 205 to ensure that the members remain in position at all time, including park.

A further embodiment is shown in figure 6 wherein the vertical spacer 255 is inserted between the frame 250 and the feeder house 340. This vertical spacer 255 is fastened to the corn head frame 250 in the same manner as vertical spacer 240 in figure 4. There is also shown in figure 6 the flexible feeder plate 280, which conforms to

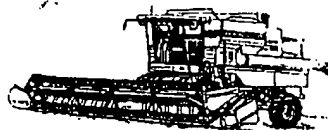
the cylindrical path swept by the feeder house chain 320. The flexible feeder plate 280 also maintains a seal between the trough 200 and the feeder house 340 during lateral tilt.

Figure 7 is an end view of the invention showing the vertical spacer 240, frame member 250, feeder house 340, and the filler plate 275 between the feeder house 340 and the rear vertical wall of the cross auger trough 200. The corn head and feeder house are connected by fastening means 272 to ensure that they remain in position at all times including park.



# Combine TR<sup>®</sup>87

Serial Number 557068 &  
Above



# OPERATOR'S MANUAL



NEW HOLLAND

42008712 4/95  
Engineering #86520254

17

## MAINTENANCE - FEEDER

## OPERATIONAL ADJUSTMENTS

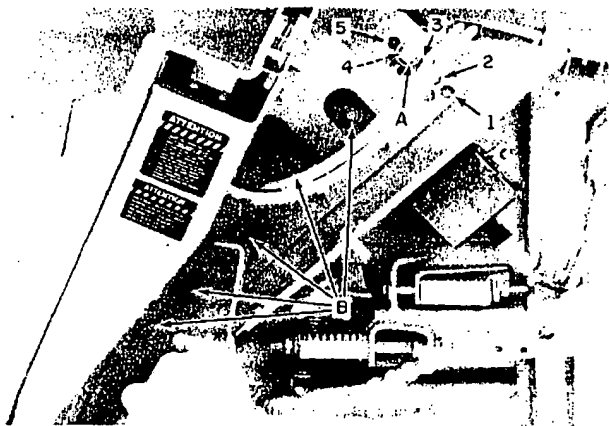


Figure 4A-14

SHIELDS REMOVED FOR CLARITY.

3696-11

FEEDER FACE PLATE ASSEMBLY  
(ADJUSTABLE FEEDERS ONLY)

The feeder face plate angle can be changed to maintain the optimum cutter bar angle with the ground, regardless of the tire size used or ground conditions encountered.

Consult the following chart for the recommended face plate angle for a given tire size and head combination. Figure 4A-14 shows the feeder holes which are listed in the chart. The top five holes are numbered from the rear toward the front. The lower four holes can be used for intermediate adjustment.

		MODEL		
TIRE SIZE		971	973	974
28 L X 26	R-1	1	2	3
	R-2	2	2	3
24.5 X 32	R-1	2	3	3
	R-2	3	3	3
30.5 L X 32	R-1	4	2	3
	R-2	4	1	3

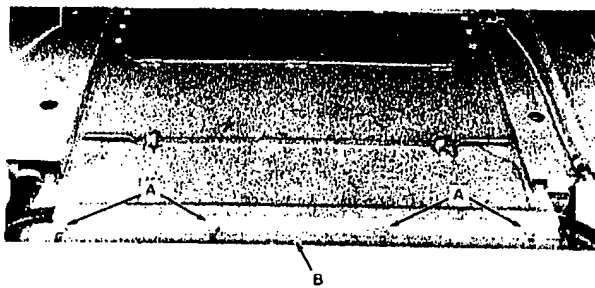


Figure 4A-15

A286-1

**NOTE:** Any face plate angle can be used with the Model 974 corn head. However, if only the corn head will be used, use face plate hole 2.

The face plate angles shown in the chart are for normal ground conditions. Change the face plate angle when operating in muddy conditions for an extended period.

To change the feeder face plate angle, remove bolt, A, Figure 4A-14, from both sides of the feeder. Loosen the five bolts, B, on both sides of the feeder.

Loosen bolts, A, Figure 4A-15, along the back edge of the face plate. Move the face plate to the desired position. Reinstall the top two bolts and tighten the remaining hardware. Slide plate, B, forward until it contacts the face plate or until the slotted holes in the plate bottom. Tighten hardware, A.

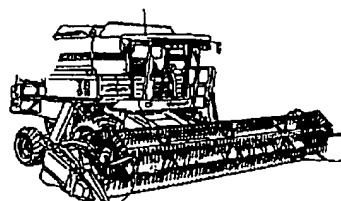


**CAUTION:** DO NOT ATTEMPT THIS ADJUSTMENT WHEN A HEAD IS INSTALLED.

# Flexible Cutter Bar Grain Head 973

Serial Number 580644 &  
Above

(Replaces Issue #42097317  
4/95)



# OPERATOR'S MANUAL



NEW HOLLAND

42097318 12/95  
Engineering #86527328

## TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	CORRECTION
Stubble length too long or guard tips digging into the ground.	Improper tilt of feeder front plate.	Position feeder front plate as recommended for various tire sizes. See combine operator's manual.
	Automatic head height control improperly adjusted.	Adjust ground pressure with control cable in operator's cab.
Reel wrapping or carrying straw around.	Reel speed too fast.	Reduce reel speed so material will fall onto the cutting platform. Reel speed should be slightly faster than ground speed.
	Reel height incorrect.	Adjust reel so the bats contact approximately 1/3 of the top portion of the stem and heads.
	Too much pitch on pickup tines.	Reduce pitch of tines.
	Pickup reel ends unprotected.	Install reel end shields. Install long crop dividers.
	Reel set back too far.	Move reel forward.
Difficulty harvesting down or tangled crops.	Necessary to take too much material into combine to get all the grain.	Reduce ground speed.
	Must cut too low to get all the crop.	Use lift guards in down and tangled crop conditions.
	Incorrect reel location.	Adjust reel ahead and down to lift crop.
Poor material flow to auger.	Pickup fingers are pitched too much.	Reduce pitch of fingers.
	Paint or rust on head floor.	Remove paint or rust.
	Reel too far forward or rearward.	Adjust reel position to create smooth crop flow.
Green or matted material hangs on knife guard tips.	Improper guards.	Replace regular guards with stub guards.